REMARKS

In an office action dated October 10, 2006, the Examiner reopened prosecution following appeal, and rejected claims 1-5 and 7-26 under 35 U.S.C. 102(b) as anticipated by Nabahi (U.S. Patent 6,006,035).

Applicants have cancelled independent claim 17 and amended all remaining independent claims to clarify certain aspects of the invention. These amendments incorporate certain limitations proposed in the previously filed amendment after final rejection (which was not entered), and which clarify that the upgrade or installation object contains a script which is compiled and executed by the script processor or processing module. In addition, the currently amended claims clarify that the upgrade or installation object is created remotely, and transmitted to the system containing or to contain the computer program of interest, where it is executed by the script processor. Certain conforming amendments have been made to the dependent claims, and some dependent claims have been cancelled as superfluous, their subject matter now being incorporated into the independent claims. As amended, the claims are patentable over the cited art.

Applicants' invention is intended to simplify software maintenance, and particularly an upgrade process for software which is installed on a relatively large number of systems by a common business entity. Frequently, it will be desirable to load some software package and continually upgrade it on multiple systems, but the systems themselves may be different in that they have different hardware properties (processor, memory size, available storage, communications devices, etc.) and/or different software configuration (versions of operating system, software applications and versions thereof loaded, etc.) It is difficult to guarantee that installation or upgrade prerequisites will be met on all such systems, that configurations will be the same, and so forth.

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Conventionally, most businesses employ persons who are trained to deal with all the possible contingencies and who install software on the applicable systems. This is a very labor intensive approach. It is also theoretically possible to create custom software for installation, but again the cost of developing such software is high.

Applicants' invention involves an improved upgrade process, whereby a centralized system administrator or similar person creates upgrade or installation objects in the form of simple scripts. These scripts specify some series of actions to be taken to install or upgrade the code. The scripts are contained within upgrade or installation objects, which preferably specify any required prerequisites for script execution and other information. Multiple objects can be used for any particular upgrade or installation, each having its own prerequisites, thus facilitating flexibility in design and ease of re-use of installation or upgrade objects. The scripts of applicant's invention are not executable programs, but require the use of a separate script processor for execution. The script processor is distributed in advance, preferably as part of the computer program, but only need be distributed once, and is a permanent part of each target system. Thus, the script processor is not required to be distributed with each upgrade, effectively reducing the transmission bandwidth required to support upgrades. The script processor is executable code which reads the script contained in the update object and performs the upgrade according to the script. I.e., the script processor is essentially a compiler or interpreter which interprets the script commands and performs the functions specified therein.

Nabahi discloses a technique for custom software installation, in which a system administrator creates installation software for use by a rule-based installation engine. The process of creating custom installation software involves translating custom installation parameters into a script language file, which is then compiled by the system administrator using a script compiler. The compiled installation program is then distributed to the various systems and executed to install the code.

Nabahi's "script" is thus something which is used to generate the custom installation code at the system administrator level, i.e., before distribution of the custom installation code. This installation code is then distributed to the different computer systems for use. *Nabahi* does not anticipate applicants' claims because, inter alia, *Nabahi* does not teach that an upgrade (or installation) object containing an uncompiled, unexecutable script is distributed to the various systems, at which it is compiled and executed using a script processor. The script processor is part of the program being upgraded or part of the instruction processing environment, on the computer system to which the program is being upgraded or installed, and is separate from the upgrade object.

Applicants' representative claim 1, as amended, recites:

1.   A method of upgrading a computer program installed on a first computer system, the computer program including a script processing module, the method comprising:
       receiving an upgrade object associated with the computer program, the *upgrade object including a script comprising a plurality of script instructions of a pre-defined script instruction set adapted for use by the script processing module* to upgrade the computer program, the script being not independently executable without the script processing module, the *upgrade object being generated on a second computer system remote from said first computer system and transmitted from said second computer system to said first computer system*; and
       performing an upgrade of said computer program by *compiling and executing the script on said first computer system with the script processing module.* [emphasis added]

Independent claims 12 and 16 contain analogous limitations to the italicized limitations above. Independent claims 18 and 23 recite installing the program rather than upgrading it, the script processor being part of the environment to which the program is installed, but otherwise contain analogous recitations to the italicized limitations above.

As explained above, *Nabahi* discloses compiling a script in the system administrator's system and distributing compiled objects. For all of the reasons stated above, the claims as amended are not anticipated by *Nabahi*.

Nor are the independent claims obvious over *Nabahi*. There is nothing in *Nabahi* that suggests distributing scripts to the individual user systems for execution using a script processor resident on those systems. The entire thrust of *Nabahi* appears to be providing the system administrator with the capability to generate customized compiled objects which are difficult to generate using prior art techniques. A technique such as claimed by applicants runs contrary to the theme of *Nabahi*, and *Nabahi* thus teaches away from such a technique.

Independent claim 16, as well as certain dependent claims, further recite that the upgrade object includes a prerequisite field, the script being executed by the script processor responsive to determining whether the prerequisite is met. Again, this feature is not taught or suggested by *Nabahi*. The Examiner apparently takes the position that, since *Nabahi*'s script contains sequential statements, it is inherent that some statements be executed before others, and this satisfies the requirement. Applicants' respectfully disagree. A prerequisite field specifies conditions which must be satisfied before execution of *any* of the statements in the script. The prerequisites are not commands or instructions which generate actions to be performed. They are conditions on execution. It is entirely possible that all prerequisites will be satisfied when the upgrade object is received. If not, the prerequisite must be satisfied externally of the upgrade object. This could be performed, e.g., using a different upgrade object, or by some other external means. *Nabahi* does not teach or suggest the use of such prerequisites.

In view of the foregoing, applicants submit that the claims are now in condition for allowance and respectfully request reconsideration and allowance of all claims. In addition, the

Examiner is encouraged to contact applicants' attorney by telephone if there are outstanding issues left to be resolved to place this case in condition for allowance.

Respectfully submitted,

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